

CLAIMS

1. (Amended) A method for producing a pocket coil bag row comprising the steps of:

conveying and sending coil springs having different wire diameters sent, sent out from at least two or more coil spring producing apparatuses for respectively producing the coil springs having different wire diameters, into a coil chute section having receiving chambers corresponding to the coil springs having different wire diameters at an entrance side of the coil chute section, opening/closing sections in the lower portions of the respective receiving chambers, and a single exit for discharging the coil springs having different wire diameters;

controlling opening/closing of the opening/closing sections by selecting a destination of an opening/closing signal for deciding which opening/closing section of the coil chute section is to be opened;

sending out the coil springs to the exit of the coil chute section in an order so that the coil springs are arranged in a previously set pattern of the coil springs having different wire diameters; and

enclosing the coil springs sequentially in the order of the previously set pattern by a coil spring enclosing apparatus that forms continuous bags and encloses the coil springs individually into the bags.

2. (Amended) An apparatus for producing a pocket coil bag row comprising:

at least two or more coil spring producing apparatuses for respectively producing coil springs having different wire diameters; and

an apparatus for conveying the coil springs having different wire diameters from the respective coil spring producing apparatuses to a coil chute section, wherein

the coil chute section includes: a plurality of receiving chambers provided

at an entrance of the coil chute section, corresponding to the coil springs having different wire diameters sent from respective coil spring producing apparatus, opening/closing sections provided in the lower portions of the receiving chambers, and a single exit,

a control device is provided for controlling opening/closing of the opening/closing sections by selecting a destination of an opening/closing signal for deciding which opening/closing section is to be opened so that the coil springs are arranged in a previously set pattern of the coil springs having different wire diameters,

the coil springs are sent out to the exit of the coil chute section in an order of the previously set pattern, and enclosed in the order of the previously set pattern individually into continuous bags while forming the bags.

3. An apparatus for producing a pocket coil bag row as stated in claim 2, further comprising:

a feeding auxiliary apparatus, provided corresponding to each receiving chamber, for sending the coil springs having different wire diameters when the opening/closing sections of the coil chute are open.

4. An apparatus for producing a pocket coil bag row as stated in claim 2 or 3, further comprising:

heat treatment apparatuses for heat treating the coil springs having electrodes provided at both sides of any area of the conveying apparatus for conveying the coil springs having different wire diameters to the coil chute section.

5. An apparatus for producing a pocket coil bag row as stated in any of claims 2 to 4, further comprising:

a metal sensor for determining whether or not the coil springs having different wire diameters inserted into a folded cloth sheet are inserted.

6. An apparatus for producing a pocket coil bag row as stated in any of claim 2 to 5, further comprising:

a marking apparatus for marking the cloth sheet to identify the type of the coil springs to be enclosed in the bag.

7. An apparatus for producing a pocket coil bag row as stated in any of claims 2 to 6, further comprising:

a feeding apparatus for adjusting feeding speed of the cloth sheet depending on the type of the coil springs inserted into the cloth sheet.

8. (Amended) A pocket coil sheet formed of a pocket coil bag row produced by the method for producing the pocket coil bag row as stated in claim 1, wherein

the coil springs having different wire diameters are enclosed in the pocket coil bag row.

9. (New) A pocket coil sheet formed of a plurality of pocket coil bag rows produced by the method for producing the pocket coil bag row as stated in claim 1, wherein

the coil springs having different wire diameters are enclosed in the same pocket coil bag row among the plurality of pocket coil bag rows.